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Patentanwälte
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Anmeldung Nr./Application No./Demande n°//Patent Nr./Patent No./Brevet n°
00946410.8-2102/JPO004850

Anmelder/Applicant/Demandeur//Patentinhaber/Proprietor/Titulaire
Teijin Chemicals, Ltd.

T: 3.01.05 sl

W: 23.12.04 sl

COMMUNICATION

The European Patent Office herewith transmits the supplementary partial European search report under Rule 46(1) EPC relating to the above mentioned European patent application.

Copies of the documents cited in the search report are enclosed.

The applicant's attention is drawn to the following:

The search Division informs the applicant that if the European search report is also to cover inventions other than the invention first mentioned in the claims, a further search fee must be paid for each of these inventions, within ONE MONTH after notification of this communication.

If the application has been filed up to 30 June 1999, the search fee in force before 01 July 1999 (EUR 869,-) or the equivalent applicable on the date of payment is payable.
This applies also to the search fees requested under Rule 46(1) EPC.
See also OJ EPO 06/1999, 405.

☐ The abstract was modified by the Search Division and the definitive text is attached to the present communication.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well. (01)



Note to users of the automatic debiting procedure:

Unless the EPO receives prior instructions to the contrary, the search fee(s) will be debited on the last day of the period for payment. For further details see the Arrangements for the automatic debiting procedure, Supplement to OJ EPO 02/1999.

REGISTERED LETTER



European Patent
Office

SUPPLEMENTARY

PARTIAL EUROPEAN SEARCH REPORT

Application Number

under Rule 46, paragraph 1 of the European Patent Convention EP 00 94 6410

| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|---|---|--|--|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.Cl.7) |
| X | US 4 154 775 A (AXELROD ROBERT J) 15 May 1979 (1979-05-15) | 1-11, 14, 23-28 | C08L51/04 C08L101/00 |
| Y | * the whole document * | 12, 13, 32-35 | C08K5/521 C08K5/527 C08K5/5357 C07F9/6574 |
| A | US 4 520 152 A (AXELROD ROBERT J) 28 May 1985 (1985-05-28) | 1-14, 23-28, 32-35 | |
| | * the whole document * | | |
| X | PATENT ABSTRACTS OF JAPAN vol. 0180, no. 97 (C-1167), 17 February 1994 (1994-02-17) & JP 5 295249 A (ASAHI CHEM IND CO LTD), 9 November 1993 (1993-11-09) * abstract * | 1-14, 23-28, 32-35 | |
| X | PATENT ABSTRACTS OF JAPAN vol. 0185, no. 20 (C-1255), 30 September 1994 (1994-09-30) & JP 6 179823 A (ASAHI CHEM IND CO LTD), 28 June 1994 (1994-06-28) * abstract * | 1-14, 23-28, 32-35 | |
| | -/-- | | |
| | | | TECHNICAL FIELDS SEARCHED (Int.Cl.7) |
| | | | C08K C07F |
| LACK OF UNITY OF INVENTION | | | |
| The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely: | | | |
| see sheet B | | | |
| The present partial European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims. | | | |
| Place of search Munich | | Date of completion of the search 23 November 2004 | Examiner Dury, O |
| CATEGORY OF CITED DOCUMENTS | | | |
| X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document | | | |

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EPO FORM 1503 03.92 (P04C23)



Application Number
EP 00 94 6410

EPO FORM 1503 03.82 (P04C10) 1

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 94 6410

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

23-11-2004

| Patent document cited in search report | | Publication date | | Patent family member(s) | Publication date |
|---|---|---------------------|------|----------------------------|---------------------|
| US 4154775 | A | 15-05-1979 | CA | 1109182 A1 | 15-09-1981 |
| US 4520152 | A | 28-05-1985 | AU | 3955078 A | 13-03-1980 |
| | | | CA | 1199745 A1 | 21-01-1986 |
| | | | DE | 2836771 A1 | 15-03-1979 |
| | | | FR | 2401956 A1 | 30-03-1979 |
| | | | GB | 2003888 A ,B | 21-03-1979 |
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| | | | US | 4390477 A | 28-06-1983 |
| JP 5295249 | A | 09-11-1993 | JP | 2612396 B2 | 21-05-1997 |
| JP 6179823 | A | 28-06-1994 | NONE | | |
| JP 9241422 | A | 16-09-1997 | NONE | | |



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-10, 23-25, 28, 32-33 all partly; 11-14, 26, 27, 34, 35

flame retardant resin composition comprising A) HIPS and B)
flame retardant of formula I1 and having good flame
retardancy, heat resistance, and impact resistance.

2. claims: 1-10, 23-25, 28, 32-33 all partly; 15-18, 36, 37

flame retardant resin composition comprising A) HIPS and B)
flame retardant of formula I2 and having good flame
retardancy, heat resistance, and impact resistance.

3. claims: 1-10, 23-25, 28, 32-33 all partly; 19-22, 29-31, 38, 39

flame retardant resin composition comprising A) HIPS and B)
flame retardant of formula I3 and having good flame
retardancy, heat resistance, and impact resistance.

Specification of the reasons for which the European Application
00946410.8 is not considered as complying with the requirements of unity
of invention according to Article 82 CBE.

In order to satisfy the requirements of unity according to Art. 82 CBE,
the content of an application shall relate to only one invention or a
group of inventions so linked as to form a single inventive concept, i.e.
when there is a technical relationship among those inventions involving
one or more of the same or corresponding special technical features. The
expression "special technical features" shall mean those technical
features that define a contribution which each of the claimed inventions,
considered as a whole, makes over the prior art.

The general problem presented by the present application is to provide a
flame retardant resin composition having good heat resistance and impact
resistance.

Three alternative solutions to solve this problem are provided for in the
independent claim 1 and its dependent claims 11, 15, and 19, namely the
use in a HIPS composition of a flame retardant according to formula I1,
I2, or I3.

The common technical feature linking these alternatives is a HIPS
composition comprising a flame retardant according to formula I.
The common technical effect linking these alternative is a resin
compositions having good heat resistance and impact resistance.

D1 (US-A-4 154 775) and D2 (US-A-4 520 152) both discloses HIPS/PPE
compositions comprising a flame retardant according to formula I1 and I2,
respectively (see relevant passages cited in the search report, in
particular the table in column 4 of D1 and D2).



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

The advantageous technical effects according to the present invention, namely good flame retardancy, heat distortion, and impact resistance are also disclosed in D1-D2, such that the inventive idea underlying the current application is obvious.

As a result, it is concluded that the single general concept between the above listed groups of inventions is neither novel nor inventive over D1-D2. Thus, the subject matter of the present application is a *posteriori* non-unitary.

The application contains three (3) groups of inventions. Consequently, the three different inventions listed above are not linked together as to form a single general inventive concept within the meaning of Art. 82 EPC. In accordance with R. 46(1) EPC, the search report has been drawn up for the first invention mentioned in the claims, i.e. for Group 1 as defined above. If the search report is to cover the other inventions mentioned above (subjects 2 to 3), a further search fee must be paid for each invention involved.